



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/757,721

01/15/2004

Masao Hashimoto

163852020600

3854

25227 7590 09/07/2007  
MORRISON & FOERSTER LLP  
1650 TYSONS BOULEVARD  
SUITE 400  
MCLEAN, VA 22102

EXAMINER

TOTH, KAREN E

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

09/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/757,721

Applicant(s)

HASHIMOTO ET AL.

Examiner

Karen E. Toth

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: It is not clear what applicant means by the phrase "is contained on", since something that is contained would be *in* whatever contains it, and something that is *on* an object would not be contained. For the purposes of examination, this has been treated as "in", particularly since applicant has no support in the specification for the control unit being "on" the fixing stand, unless applicant is intending to say "on the surface of", as in external controls. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by O'Sullivan'043 (US Patent 5494043).

O'Sullivan'043 discloses a pulse monitoring device comprising a fixing stand adapted for fixing a living organism in position (elements 50 and 60); a sensor unit movable with respect to the fixing stand and adapted to be positioned on the living organism when the living organism is positioned on the fixing stand (element 10), the sensor unit comprising at least one pressure sensitive part (element 12), and a pressure part for pressing the at least one pressure sensitive part against the living organism

Art Unit: 3735

positioned on the fixing stand (element 30); a fastening band connecting the fixing stand for fixing the living organism between the fixing stand and the sensor unit (element 52)' and a pressure part control unit for controlling the pressure part, characterized in that the pressure part control unit is contained on the fixing stand (Figure 6; elements 64, 66, 68, 70, 72, and 74). In light of the claim objection raised above, Examiner must point out that the control unit of O'Sullivan is both "in" and "on" the fixing stand.

***Claim Rejections - 35 USC § 103***

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan'043 in view of Yamasawa'084 (US Patent 4844084).

Regarding claim 2, O'Sullivan'043 discloses all the elements of the current invention except for the device comprising an A/D converter for converting the analog signal output from the pressure sensitive part to a digital signal, wherein the A/D converter is arranged in the fixing stand.

Yamasawa'084 teaches a pulse monitoring apparatus comprising an A/D converter within a fixing stand (column 4, lines 7-11), in order to enable further processing of pulse pressure signals.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the device of O'Sullivan'043, and included an A/D converter in the fixing stand, as taught by Yamasawa'084, in order to enable further processing of the pressure signals.

Art Unit: 3735

Regarding claim 3, O'Sullivan'043 in view of Yamasawa'084 discloses all the elements of the current invention, as described above, except for the sensor unit comprising a plurality of pressure sensitive parts in array and a signal extraction unit, located in the fixing stand, for multiplexing by time division the signal output of the pressure sensitive part.

Yamasawa'084 further teaches that the device's sensor unit comprises a plurality of pressure sensitive parts in array (elements 15 and 16), and a signal extraction unit (element 12) in the fixing stand that multiplexes by time division the signals from the pressure sensitive part (figure 3), in order to enable better processing of the pressure signals.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the device of O'Sullivan'043 in view of Yamasawa'084, used a plurality of pressure sensitive parts in the sensor unit, as taught by Yamasawa'084, since it's merely an alternate and equivalent arrangement of sensors, and included a signal extraction unit that multiplexes by time division, also taught by Yamasawa'084, in order to enable better processing of the pressure signals.

Regarding claim 4, O'Sullivan'043 further discloses that the device comprises an expandable pressure cuff (element 58) and that the pressure part control unit includes an expansion part for expanding and contracting the pressure cuff by filling and discharging a fluid into or from the pressure cuff, and an expansion part control unit for controlling the operation of the expansion part (column 9, lines 3-49).

Art Unit: 3735

Regarding claim 5, O'Sullivan'043 in view of Yamasawa'084 discloses all the elements of the current invention, as described above, except for the device comprising an arithmetic operation processing unit for arithmetically processing the signal output from the A/D converter, a display unit for outputting the result of the arithmetic operation obtained from the arithmetic operation processing unit, and an operating unit for receiving an input from an external source, where all the units are arranged in the fixing stand.

Yamasawa'084 further teaches that the unit's fixing stand (element 1) also houses a display (element 4) and switches for external user input (elements 5 and 6) (column 3, lines 13-15), and that the basic signal processing functions are performed in the fixing stand (column 4, lines 25-28), so that the unit's operations are consolidated and easy to access.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the device of O'Sullivan'043 in view of Yamasawa'084, and included a display, means for external input, and signal processing functions in the fixing stand, as taught by Yamasawa'084, so that the unit's operations are consolidated and easy to access.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan'043 in view of Yamasawa'084, as applied to claims 1-5 above, and further in view of Hashimoto'199.

Regarding claim 6, O'Sullivan'043 in view of Yamasawa'084 discloses all the elements of the current invention, except for the device comprising an arithmetic operation processing unit for arithmetically processing the signal output from the A/D converter, a display unit for outputting the result of the arithmetic operation obtained from the arithmetic operation processing unit, and an operating unit for receiving an input from an external source, where the processing unit is arranged in the fixing stand and the display and input units are located on the sensor unit.

Yamasawa'084 further teaches that the basic signal processing functions are performed in the fixing stand (element 1) (column 4, lines 25-28), to reduce circuitry between the processor and the processing.

Hashimoto'199 teaches an apparatus for measuring pulse waves that includes a display (element 113) for displaying results; and a control unit (element 101) that may receive external input (paragraph [0054]) that are mounted on the sensor unit (elements 1 and 2; figure 14), so that the unit's operations are easy to access.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the device of O'Sullivan'043 in view of Yamasawa'084, with signal processing functions in the fixing stand, as taught by Yamasawa'084, to reduce circuitry between the processor and the processing, and with a display and means for external input in the sensing unit, as taught by Hashimoto'199, in order to make the unit's operations easy to access.

Regarding claim 7, O'Sullivan'043 in view of Yamasawa'084 discloses all the elements of the current invention, as described above, except for the device comprising

an arithmetic operation processing unit for arithmetically processing the signal output from the A/D converter, a display unit for outputting the result of the arithmetic operation obtained from the arithmetic operation processing unit, and an operating unit for receiving an input from an external source, where all the units are arranged in the sensor unit.

Hashimoto'199 teaches an apparatus for measuring pulse waves that includes a display (element 113) for displaying results; a control unit (element 101) that may receive external input (paragraph [0054]); and a processing unit (elements 101, 102 and 104) for processing signals (paragraphs [0049]-[0053]) that are all mounted on the sensor unit (elements 1 and 2; figure 14), so that the unit's operations are consolidated and easy to access.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the device of O'Sullivan'043 in view of Yamasawa'084, and included a display, means for external input, and signal processing functions on the sensor unit, as taught by Hashimoto'199, so that the unit's operations are consolidated and easy to access.

### ***Response to Arguments***

6. Applicant's arguments filed 19 July 2007 have been fully considered but they are not persuasive.

Applicant argues that O'Sullivan does not provide a pressure part control unit in the system's fixing stand because it does not disclose a control circuit or A/D converter.



Art Unit: 3735

The Examiner disagrees, since O'Sullivan's fixing stand (elements 50 and 60 combined) clearly comprises "a pressure part control unit for controlling the pressure part" – that being controls 64, 66, 68, 70, 72, and 74, as shown in figure 6. Applicant has also argued that elements 50 and 60 cannot be considered a "single unit" – the Examiner again disagrees, since the two components are connected. Further, since 50 and 60 are connected and thereby comprise a single module, referred to as the fixing stand, the controls shown on element 60 are thereby contained on the system's fixing stand.

### ***Conclusion***

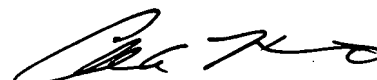
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen E. Toth whose telephone number is 571-272-6824. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3735

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*ket*  
ket

  
**CHARLES A. MARMOR**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**